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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,574	02/12/2007	Tomiyasu Ueta	21581-00361-US1	9012
30678 7590 07/22/2010 CONNOLLY BOVE LODGE & HUTZ LLP 1875 EYE STREET, N.W. SUITE 1100 WASHINGTON, DC 20006				
EXAMINER VALDEZ, DEVE E				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
07/22/2010		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/578,574

**Applicant(s)**

UETA ET AL.

**Examiner**

DEVE VALDEZ

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6, 9, 10 and 13-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9, 10 and 13-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date 4/12/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Terminal Disclaimer***

1. The terminal disclaimer filed on 4/28/2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent No. 7,368,488 has been reviewed and is accepted. The terminal disclaimer has been recorded.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim recites the term "may" which is optional language and therefore it is unclear to what extent the optional language is set forth? Clarification is needed.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

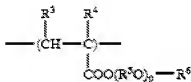
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-6, 9, 10, 15, 16, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 02/096823 (hereinafter, **YAMASHITA**)

6. Regarding claims 1, 4, 5, 9, 10, 15, 16, and 23, **YAMASHITA** teaches a cement admixture comprising two polymers A and B wherein the polymer (B) is an oxyalkylene

group or polyoxyalkylene group and carboxyl group-containing polymer (p. 6, lines 19-21). Also, the cement admixture wherein the constituent unit (III) derived from an unsaturated monocarboxylic acid ester monomer (c) is a constituent unit (IV) derived from a (poly) alkylene glycol mono(meth) acrylic acid ester monomer (p. 7, lines 18-28).



wherein  $\text{R}^3$  and  $\text{R}^4$  are the same or different and each represents a hydrogen atom or a methyl group, the  $p \text{ R}^5\text{O}$  groups are the same or different and each  $\text{R}^5\text{O}$  represents an oxyalkylene group containing 2 to 18 carbon atoms,  $p$  is a mean addition number of moles of the oxyalkylene groups and represents a number of 1 to 500, and  $\text{R}^6$  represents a hydrogen atom or a hydrocarbon group containing 1 to 30 carbon atoms (p. 7, lines 25-28; p. 8, lines 1-4). The unsaturated (poly) alkylene glycol ether monomer used are mixtures of methoxy (poly) propylene glycol and methoxy (poly) butylene glycol allyl ether [0108]. The (poly)alkylene glycol mono(meth)acrylic acid ester monomer, which provides the constituent unit is used as the unsaturated monocarboxylic acid ester monomer wherein  $p$  is not less than 2 and  $\text{R}^6$  is a hydrogen atom such as polypropylene glycol mono(meth)acrylate and polybutylene glycol mono(meth)acrylate (p. 32, lines 34-35, p. 33, lines 1-17). The total content (% by mass) of the constituent units (I) and (II) in the polymer (A1) is preferably 50 to 100% by mass, more preferably 70 to 100% by mass, relative to the whole polymer (A1) (p. 15, lines 8-11) .

7. Regarding claim 2, **YAMASHITA** teaches the cement admixture wherein the ratio of the acid value of the polymers is 0.4-3.0 (p.15, lines 12-30).
8. Regarding claim 3, **YAMASHITA** teaches the polymers of the cement admixture having a molecular weight of 10,000 (p. 54, line 35; p. 55, lines 1-11) .
9. Regarding claims 6, 8, and 24, **YAMASHITA** teaches the cement admixture the ratio between the polymers (A) and (B), namely the mixing ratio (polymer (A)/polymer (B) ) (% by mass), is 1 to 99 and 99 to 1 (p. 55, lines 12-18;p. 64, lines 16-26).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

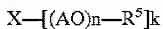
13. Claims 17-22, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over **YAMASHITA** et al. (U.S. Publication Application 2003/0199616, hereinafter **YAMASHITA**) in view of **TOMITA** et al. (U.S. Publication Application No. 2004/0107876, hereinafter **TOMITA**).

14. Regarding claims 17-22, 25, and 26, **YAMASHITA** teaches the invention as substantially claimed, see paragraph 6. **YAMASHITA** further teaches the cement admixture in combination with an oxyalkylene type antifoaming agent to be used in the invention (p.72, lines 31-35; p. 73, lines 1-4).

15. **However YAMASHITA does not teach a polyoxyalkylene compound containing at least one nitrogen atom and, at the same time, having an oxyethylene group and anoxyalkylene group having 3 or more carbon atoms in a molecule, and containing an aliphatic hydrocarbon structure in which 5 or more carbon atoms are bound successively.**

16. In the same field of endeavor of cement admixtures, **TOMITA** teaches a concrete composition comprising, as essential constituents, an defoaming agent having a specific structure, a polycarboxylic acid polymer, cement, water, fine aggregate, and coarse aggregate (p. 12, lines 17-30). The defoaming agent comprises a polyoxyalkylene compound having at least one nitrogen atom within the molecule and

having an oxyethylene group or groups and an oxyalkylene group or groups containing not less than 3 carbon atoms and further having an aliphatic hydrocarbon structure containing at least 5 consecutively bound carbon atoms. One or two or more such polyoxyalkylene compounds may be used (p. 13, lines 1-6). The preferred polyoxyalkylene compound to be used are compounds represented by the following general formula:



Wherein X represent the residue of an active hydrogen-containing compound, the  $\text{R}^5$  groups are the same or different and each represents a hydrogen atom, a hydrocarbon group,  $-\text{Y}-\text{NR}^6\text{R}^7$ ,  $-\text{COR}^8$ , or  $-\text{CH}_2\text{CH}_2\text{NHCO}-\text{R}^9$  (Y representing an alkylene group containing 1 to 10 carbon atoms,  $\text{R}^6$  and  $\text{R}^7$  being the same or different and each representing an hydrogen atom or a hydrocarbon group containing 1 to 30 carbon atoms,  $\text{R}^8$  and  $\text{R}^9$  each representing a hydrocarbon group containing 1 to 30 carbon atoms or a group or a salt thereof), the AO groups are the same or different and each represents an oxyalkylene group containing 2 to 18 carbon atoms, the n are the same or different and each n represents the mean number of moles of the oxyalkylene group added and is equal to 1 to 300, k is 1 to 300 and wherein, when the total number of the oxyalkylene group(s) containing not less than 3 carbon atoms in the above-mentioned oxyalkylene groups are represented by u and v, respectively, the relations  $0.1 < u/(u+v) < 0.9$  and  $1 < u+v < 300$  are satisfied (p. 14, lines 33-35; p. 15, lines 1-27).

17. Since **YAMASHITA's** cement admixture composition can contain be combined with an oxyalkylene type antifoaming agent, it would have been obvious to a person of

ordinary skill in the art at the time the invention was made to combine the defoaming agent that comprises polyoxyalkylene compound of **TOMITA** with the cement admixture of **YAMASHITA** for the benefit of exhibiting good strength and durability performance. It is prima facie case obvious to combine individually old ingredients for their known additive function, i.e., it is obvious to add a known ingredient for its known function; *In re Linder* 173 USPQ 356; *In re Dial et al.* 140 USPQ 244.

### ***Response to Arguments***

18. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection. **YAMASHITA** is reinstated because the prior art anticipates the instant invention. Firstly, YAMASHITA teaches the polymers of the cement admixture having a molecular weight of 10,000 (p.54, line 35; p. 55, lines 1-11). Note the reference is good for all its worth including exemplified disclosures. Secondly, the poly(oxyalkylene) group and carboxyl group-containing compound shows excellent initial dispersing ability and dispersion retaining ability even in a high water reducing ratio range. The mixture further comprises a combination of a poly(oxyalkylene) group and carboxyl group-containing compound obtained by using an unsaturated monocarboxylic acid ester monomer as an essential comonomer constituent can exhibit excellent dispersion retaining ability with time even in high water reducing ratio range (p. 5, lines 11-29).



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVE VALDEZ whose telephone number is (571)270-7738. The examiner can normally be reached on Mon-Thurs, 7:30pm-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DEVE VALDEZ/

/Rabon Sergent/  
Primary Examiner, Art Unit 1796